Northern Lights Love Canada

THE SKY'S THE LIMIT

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Canadians have a lot to brag about. If you've travelled the globe, you know what the world thinks of our homeland. Having lived here all my life, it's hard to list all the blessings we naturally have geographically speaking, but if you've called various parts of this nation home like me, you know exactly what I'm talking about. The 1960s Canadian version of the folk song written by Woody Guthrie of The Travellers called *This Land* was sung about the Great White North landscape includes lines such as, "From Bonavista to Vancouver Island, From the Arctic Circle to the Great Lake waters," and ends in the famous chorus, "This land was made for you and me."

Yet if I had to amend the lyrics, I would been more specific like the American version and finished with "From The towering Rockies to the Northern Light Show" (how can you can tell I'm an amateur astronomer and not a song writer?) to emphasize not only our world-class mountain peaks but the renowned Northern Lights, which spontaneously sweep our night sky as a celestial extra. Canada is one of the few polar countries that has a privileged view of what is better known as the "Aurora Borealis."

The Northern Lights are natural luminosity displays in the sky usually observed at night, particularly in the polar regions, which typically occur in the ionosphere caused by interaction between the Earth's magnetic field and solar wind. The Aurora Borealis was named after the Roman goddess of dawn, Aurora, and the Greek name for the north wind, Boreas, by Pierre Gassendi in 1621. Most often taking place from September to October and from March to April, the northern lights have had a number of names throughout history. The Cree people for example called this event the "Dance of the Spirits."

Scientists have increasingly been interested in the Northern Lights phenomena. University of Alberta physicists Jonathan Rae and Ian Mann with researchers recently teamed up with NASA to track their origins in space (check out http://www.cbc.ca/canada/north/story/2009/05/26/substorm-themis-origin.html). Also, a project called "THEMIS" is a space weather understudy which largely considers the Aurora Borealis. However, you're probably just interested in viewing them for now, but if your normal and sleep at night like most of us-how do you not miss those three in the morning ones? Believe it or not there's a service you can sign up for a small fee of $5 per month that will get you a phone call when there's a chance of one being over you. Check out http://spaceweatherphone.com/ for details!

■ Sky watch for the next month

Uranus will be at its closest point for the year on Sept. 17 from 9 p.m. in the SEE sky peaking 36 degrees up at 1 a.m. in the south and setting at dawn at SWW. While the blue/green planet is too hard to see with the naked eye, a good telescope will reveal this distinct cobalt coloured dot amongst the background.

Mercury and Saturn will be very close together on the morning of Sept. 22 rising lock step with the sun around 7 a.m. Saturn will be on top while Mercury 45 degrees to the right. If you're using a scope or binos, make sure you have the appropriate shaded lens as the rays can damage your eyes.

The fall equinox, or autumn's official start, arrives on Sept. 22 at 3:19 p.m. Technically the day and night share the same length of light and darkness but it's mingled with twilight and dawn. The Autumnal Equinox signals the end of the summer months and indicates the entry of winter. At this time of year, days have been shortening since the Summer Solstice some three months earlier and after this point, the Sun will shine lower and lower on the horizon until the Winter Solstice in about three months' time, on Dec. 21.

Zodiacal Light is a faint, roughly triangular, whitish glow seen in the night sky that appears to extend up from the vicinity of the sun along the ecliptic or zodiac. First discovered by the astronomer Giovanni Domenico Cassini in 1683 and later explained by Nicolas Fatio de Duillier in 1684, it can be hard to find and the best time to see it is from Sept. 17 to the end of the month in the eastern night sky.

Also, check out www.whatsuptonight.net, www.astronomy.com, www.space.com and www.nasa.gov. They have much more detailed information and great stuff for kids all for free!

■ Weekend Star Party in September

Have you ever camped out to see the stars? Join like-minded folks Sept. 18-20 for an action-packed weekend at the Weekend Star Party in the Badlands. The event is sponsored by the Calgary chapter of the Royal Astronomical Society of Canada. Check out http://calgary.rasc.ca/asp2009.htm for details.

Happy Last Days of summer, and keep reaching for the sky!